

CLAIMS

- 1 - Multilayer plastic fuel tank having at least one opening in its wall and at least one plastic part which closes off the opening, characterized in that the part is sulphonated over at least a portion in contact with the internal volume of the tank.
- 2 - Tank according to the preceding claim, characterized in that the part is selected from injection-moulded parts, extruded parts, blow-moulded parts and compression-moulded parts.
- 3 - Tank according to the preceding claim, characterized in that the part contains, at least in its sulphonated portion, at least 0.1 % by weight of a polyalkyleneimine with respect to the total material of the sulphonated portion of the part.
- 4 - Tank according to any one of the preceding claims, characterized in that the part is an accessory of the fuel tank.
- 5 - Tank according to the preceding claim, characterized in that the accessory is chosen from closure plates, tank venting and/or shut-off valves, delivery tubes for the flow of gas and/or liquid, connectors for at least an electrical cable and/or at least an optical fibre, connection sockets for pump-gauge modules, filling necks, safety valves and auxiliary additive tanks.
- 6 - Tank according to any one of the preceding claims, characterized in that it is mounted on a motor vehicle.
- 7 - Process for manufacturing a multilayer plastic fuel tank comprising at least one opening in its wall, closed off by a sulphonated plastic part, characterized in that the following steps are carried out, in the order indicated:
- a) at least a portion of the wall of the tank is manufactured using a moulding technique, comprising at least one operation chosen from blow moulding and compression moulding;
- b) the opening is closed off by means of a sulphonated plastic part; and
- c) the part closing off the opening is fastened to the wall of the tank.

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8 - Process according to the preceding claim, characterized in that the part is fastened to the wall by welding.

9 - Process according to either of Claims 7 and 8, characterized in that the sulphonated part was manufactured beforehand in three steps consisting, in
5 order, of:

a) a first step of moulding a plastic comprising, at least in a portion of the part, at least 0.1% by weight of at least only polyalkyleneimine with respect to the total material of the sulphonated portion of the part;

b) a step of sulphonating at least that portion of the part in contact with the
10 gaseous or liquid SO_3 ; and

c) a final step of rinsing followed by neutralization of at least the contact-sulphonated portion of the part by means of an alkaline solution.

10 - Process according to the preceding claim, characterized in that the moulding operation is selected from injection moulding, extrusion, blow
15 moulding and compression moulding.